

RAW SEQUENCE LISTING

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Application Serial Number: 10/620,787
Source: JFWO
Date Processed by STIC: 09/14/2005

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/620,787

DATE: 09/14/2005

TIME: 09:41:50

Input Set : A:\51300-00006 Sequence Listing.txt
 Output Set: N:\CRF4\09142005\J620787.raw

3 <110> APPLICANT: Simard, John
 4 Simms, John J.
 5 Qiu, Zhiyong
 7 <120> TITLE OF INVENTION: Immunogenic Compositions Derived from Poxviruses and Methods
 of
 8 Using Same
 10 <130> FILE REFERENCE: 51300-00006
 12 <140> CURRENT APPLICATION NUMBER: 10/620,787
 13 <141> CURRENT FILING DATE: 2003-07-15
 15 <150> PRIOR APPLICATION NUMBER: 60/396,293
 16 <151> PRIOR FILING DATE: 2002-07-15
 18 <160> NUMBER OF SEQ ID NOS: 32
 20 <170> SOFTWARE: PatentIn version 3.2
 22 <210> SEQ ID NO: 1
 23 <211> LENGTH: 250
 24 <212> TYPE: PRT
 25 <213> ORGANISM: Vaccinia virus
 27 <400> SEQUENCE: 1
 29 Met Gly Ala Ala Ala Ser Ile Gln Thr Thr Val Asn Thr Leu Ser Glu
 30 1 5 10 15
 33 Arg Ile Ser Ser Lys Leu Glu Gln Glu Ala Asn Ala Ser Ala Gln Thr
 34 20 25 30
 37 Lys Cys Asp Ile Glu Ile Gly Asn Phe Tyr Ile Arg Gln Asn His Gly
 38 35 40 45
 41 Cys Asn Leu Thr Val Lys Asn Met Cys Ser Ala Asp Ala Asp Ala Gln
 42 50 55 60
 45 Leu Asp Ala Val Leu Ser Ala Ala Thr Glu Thr Tyr Ser Gly Leu Thr
 46 65 70 75 80
 49 Pro Glu Gln Lys Ala Tyr Val Pro Ala Met Phe Thr Ala Ala Leu Asn
 50 85 90 95
 53 Ile Gln Thr Ser Val Asn Thr Val Val Arg Asp Phe Glu Asn Tyr Val
 54 100 105 110
 57 Lys Gln Thr Cys Asn Ser Ser Ala Val Val Asp Asn Lys Leu Lys Ile
 58 115 120 125
 61 Gln Asn Val Ile Ile Asp Glu Cys Tyr Gly Ala Pro Gly Ser Pro Thr
 62 130 135 140
 65 Asn Leu Glu Phe Ile Asn Thr Gly Ser Ser Lys Gly Asn Cys Ala Ile
 66 145 150 155 160
 69 Lys Ala Leu Met Gln Leu Thr Thr Lys Ala Thr Thr Gln Ile Ala Pro
 70 165 170 175
 73 Lys Gln Val Ala Gly Thr Gly Val Gln Phe Tyr Met Ile Val Ile Gly
 74 180 185 190
 77 Val Ile Ile Leu Ala Ala Leu Phe Met Tyr Tyr Ala Lys Arg Met Leu
 78 195 200 205

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81 Phe Thr Ser Thr Asn Asp Lys Ile Lys Leu Ile Leu Ala Asn Lys Glu
 82 210 215 220
 85 Asn Val His Trp Thr Thr Tyr Met Asp Thr Phe Phe Arg Thr Ser Pro
 86 225 230 235 240
 89 Met Val Ile Ala Thr Thr Asp Met Gln Asn
 90 245 250
 93 <210> SEQ ID NO: 2
 94 <211> LENGTH: 250
 95 <212> TYPE: PRT
 96 <213> ORGANISM: Vaccinia virus
 98 <400> SEQUENCE: 2
 100 Met Gly Ala Ala Ala Ser Ile Gln Thr Thr Val Asn Thr Leu Ser Glu
 101 1 5 10 15
 104 Arg Ile Ser Ser Lys Leu Glu Gln Glu Ala Asn Ala Ser Ala Gln Thr
 105 20 25 30
 108 Lys Cys Asp Ile Glu Ile Gly Asn Phe Tyr Ile Arg Gln Asn His Gly
 109 35 40 45
 112 Cys Asn Leu Thr Val Lys Asn Met Cys Ser Ala Asp Ala Asp Ala Gln
 113 50 55 60
 116 Leu Asp Ala Val Leu Ser Ala Ala Thr Glu Thr Tyr Ser Gly Leu Thr
 117 65 70 75 80
 120 Pro Glu Gln Lys Ala Tyr Val Pro Ala Met Phe Thr Ala Ala Leu Asn
 121 85 90 95
 124 Ile Gln Thr Ser Val Asn Thr Val Val Arg Asp Phe Glu Asn Tyr Val
 125 100 105 110
 128 Lys Gln Thr Cys Asn Ser Ser Ala Val Val Asp Asn Lys Leu Lys Ile
 129 115 120 125
 132 Gln Asn Val Ile Ile Asp Glu Cys Tyr Gly Ala Pro Gly Ser Pro Thr
 133 130 135 140
 136 Asn Leu Glu Phe Ile Asn Thr Gly Ser Ser Lys Gly Asn Cys Ala Ile
 137 145 150 155 160
 140 Lys Ala Leu Met Gln Leu Thr Thr Lys Ala Thr Thr Gln Ile Ala Pro
 141 165 170 175
 144 Arg Gln Val Ala Gly Thr Gly Val Gln Phe Tyr Met Ile Val Ile Gly
 145 180 185 190
 148 Val Ile Ile Leu Ala Ala Leu Phe Met Tyr Tyr Ala Lys Arg Met Leu
 149 195 200 205
 152 Phe Thr Ser Thr Asn Asp Lys Ile Lys Leu Ile Leu Ala Asn Lys Glu
 153 210 215 220
 156 Asn Val His Trp Thr Thr Tyr Met Asp Thr Phe Phe Arg Thr Ser Pro
 157 225 230 235 240
 160 Met Val Ile Ala Thr Thr Asp Met Gln Asn
 161 245 250
 164 <210> SEQ ID NO: 3
 165 <211> LENGTH: 250
 166 <212> TYPE: PRT
 167 <213> ORGANISM: Variola virus
 169 <400> SEQUENCE: 3
 171 Met Gly Ala Ala Ala Ser Ile Gln Thr Thr Val Asn Thr Leu Ser Glu

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Input Set : A:\51300-00006 Sequence Listing.txt
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172 1 5 10 15
 175 Arg Ile Ser Ser Lys Leu Glu Gln Glu Ala Asn Ala Ser Ala Gln Thr
 176 20 25 30
 179 Lys Cys Asp Ile Glu Ile Gly Asn Phe Tyr Ile Arg Gln Asn His Gly
 180 35 40 45
 183 Cys Asn Leu Thr Val Lys Asn Met Cys Ser Ala Asp Ala Asp Ala Gln
 184 50 55 60
 187 Leu Asp Ala Val Leu Ser Ala Ala Thr Glu Thr Tyr Ser Gly Leu Thr
 188 65 70 75 80
 191 Pro Glu Gln Lys Ala Tyr Val Pro Ala Met Phe Thr Ala Ala Leu Asn
 192 85 90 95
 195 Ile Gln Thr Ser Val Asn Thr Val Val Arg Asp Phe Glu Asn Tyr Val
 196 100 105 110
 199 Lys Gln Thr Cys Asn Ser Ser Ala Val Val Asp Asn Lys Leu Lys Ile
 200 115 120 125
 203 Gln Asn Val Ile Ile Asp Glu Cys Tyr Gly Ala Pro Gly Ser Pro Thr
 204 130 135 140
 207 Asn Leu Glu Phe Ile Asn Thr Gly Ser Ser Lys Gly Asn Cys Ala Ile
 208 145 150 155 160
 211 Lys Ala Leu Met Gln Leu Thr Thr Lys Ala Thr Thr Gln Ile Ala Pro
 212 165 170 175
 215 Arg Gln Val Ala Gly Thr Gly Val Gln Phe Tyr Met Ile Val Ile Gly
 216 180 185 190
 219 Val Ile Ile Leu Ala Ala Leu Phe Met Tyr Tyr Ala Lys Arg Met Leu
 220 195 200 205
 223 Phe Thr Ser Thr Asn Asp Lys Ile Lys Leu Ile Leu Ala Asn Lys Glu
 224 210 215 220
 227 Asn Val His Trp Thr Thr Tyr Met Asp Thr Phe Phe Arg Thr Ser Pro
 228 225 230 235 240
 231 Met Val Ile Ala Thr Thr Asp Ile Gln Asn
 232 245 250
 235 <210> SEQ ID NO: 4
 236 <211> LENGTH: 250
 237 <212> TYPE: PRT
 238 <213> ORGANISM: Variola virus
 240 <400> SEQUENCE: 4
 242 Met Gly Ala Ala Ser Ile Gln Thr Thr Val Asn Thr Leu Ser Glu
 243 1 5 10 15
 246 Arg Ile Ser Ser Lys Leu Glu Gln Glu Ala Asn Ala Ser Ala Gln Thr
 247 20 25 30
 250 Lys Cys Asp Ile Glu Ile Gly Asn Phe Tyr Ile Arg Gln Asn His Gly
 251 35 40 45
 254 Cys Asn Leu Thr Val Lys Asn Met Cys Ser Ala Asp Ala Asp Ala Gln
 255 50 55 60
 258 Leu Asp Ala Val Leu Ser Ala Ala Thr Glu Thr Tyr Ser Gly Leu Thr
 259 65 70 75 80
 262 Pro Glu Gln Lys Ala Tyr Val Pro Ala Met Phe Thr Ala Ala Leu Asn
 263 85 90 95
 266 Ile Gln Thr Ser Val Asn Thr Val Val Arg Asp Phe Glu Asn Tyr Val

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Input Set : A:\51300-00006 Sequence Listing.txt
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267 100 105 110
 270 Lys Gln Thr Cys Asn Ser Ser Ala Val Val Asp Asn Lys Leu Lys Ile
 271 115 120 125
 274 Gln Asn Val Ile Ile Asp Glu Cys Tyr Gly Ala Pro Gly Ser Pro Thr
 275 130 135 140
 278 Asn Leu Glu Phe Ile Asn Thr Gly Ser Ser Lys Gly Asn Cys Ala Ile
 279 145 150 155 160
 282 Lys Ala Leu Met Gln Leu Thr Thr Lys Ala Thr Thr Gln Ile Ala Pro
 283 165 170 175
 286 Arg Gln Val Ala Gly Thr Gly Val Gln Phe Tyr Met Ile Val Ile Gly
 287 180 185 190
 290 Val Ile Ile Leu Ala Ala Leu Phe Met Tyr Tyr Ala Lys Arg Met Leu
 291 195 200 205
 294 Phe Thr Ser Thr Asn Asp Lys Ile Lys Leu Ile Leu Ala Asn Lys Glu
 295 210 215 220
 298 Asn Val His Trp Thr Thr Tyr Met Asp Thr Phe Phe Arg Thr Ser Pro
 299 225 230 235 240
 302 Met Val Ile Ala Thr Thr Asp Ile Gln Asn
 303 245 250
 306 <210> SEQ ID NO: 5
 307 <211> LENGTH: 250
 308 <212> TYPE: PRT
 309 <213> ORGANISM: Artificial
 311 <220> FEATURE:
 312 <223> OTHER INFORMATION: Consensus sequence for SEQ ID NOS. 1-4
 314 <400> SEQUENCE: 5
 316 Met Gly Ala Ala Ala Ser Ile Gln Thr Thr Val Asn Thr Leu Ser Glu
 317 1 5 10 15
 320 Arg Ile Ser Ser Lys Leu Glu Gln Glu Ala Asn Ala Ser Ala Gln Thr
 321 20 25 30
 324 Lys Cys Asp Ile Glu Ile Gly Asn Phe Tyr Ile Arg Gln Asn His Gly
 325 35 40 45
 328 Cys Asn Leu Thr Val Lys Asn Met Cys Ser Ala Asp Ala Asp Ala Gln
 329 50 55 60
 332 Leu Asp Ala Val Leu Ser Ala Ala Thr Glu Thr Tyr Ser Gly Leu Thr
 333 65 70 75 80
 336 Pro Glu Gln Lys Ala Tyr Val Pro Ala Met Phe Thr Ala Ala Leu Asn
 337 85 90 95
 340 Ile Gln Thr Ser Val Asn Thr Val Val Arg Asp Phe Glu Asn Tyr Val
 341 100 105 110
 344 Lys Gln Thr Cys Asn Ser Ser Ala Val Val Asp Asn Lys Leu Lys Ile
 345 115 120 125
 348 Gln Asn Val Ile Ile Asp Glu Cys Tyr Gly Ala Pro Gly Ser Pro Thr
 349 130 135 140
 352 Asn Leu Glu Phe Ile Asn Thr Gly Ser Ser Lys Gly Asn Cys Ala Ile
 353 145 150 155 160
 356 Lys Ala Leu Met Gln Leu Thr Thr Lys Ala Thr Thr Gln Ile Ala Pro
 357 165 170 175
 360 Arg Gln Val Ala Gly Thr Gly Val Gln Phe Tyr Met Ile Val Ile Gly

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Input Set : A:\51300-00006 Sequence Listing.txt
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361 180 185 190
 364 Val Ile Ile Leu Ala Ala Leu Phe Met Tyr Tyr Ala Lys Arg Met Leu
 365 195 200 205
 368 Phe Thr Ser Thr Asn Asp Lys Ile Lys Leu Ile Leu Ala Asn Lys Glu
 369 210 215 220
 372 Asn Val His Trp Thr Thr Tyr Met Asp Thr Phe Phe Arg Thr Ser Pro
 373 225 230 235 240
 376 Met Val Ile Ala Thr Thr Asp Met Gln Asn
 377 245 250
 380 <210> SEQ ID NO: 6
 381 <211> LENGTH: 110
 382 <212> TYPE: PRT
 383 <213> ORGANISM: Vaccinia virus
 385 <400> SEQUENCE: 6
 387 Met Asp Gly Thr Leu Phe Pro Gly Asp Asp Asp Leu Ala Ile Pro Ala
 388 1 5 10 15
 391 Thr Glu Phe Phe Ser Thr Lys Ala Ala Lys Lys Pro Asp Arg Lys Arg
 392 20 25 30
 395 Glu Gln Ile Val Lys Ala Asp Glu Asp Asp Asn Glu Glu Thr Leu Lys
 396 35 40 45
 399 Gln Arg Leu Thr Asn Leu Glu Lys Lys Ile Thr Asn Val Thr Thr Lys
 400 50 55 60
 403 Phe Glu Gln Ile Glu Lys Cys Cys Lys Arg Asn Asp Glu Val Leu Phe
 404 65 70 75 80
 407 Arg Leu Glu Asn His Ala Glu Thr Leu Arg Ala Ala Met Ile Ser Leu
 408 85 90 95
 411 Ala Lys Lys Ile Asp Val Gln Thr Gly Arg Arg Pro Tyr Glu
 412 100 105 110
 415 <210> SEQ ID NO: 7
 416 <211> LENGTH: 110
 417 <212> TYPE: PRT
 418 <213> ORGANISM: Vaccinia virus
 420 <400> SEQUENCE: 7
 422 Met Asp Gly Thr Leu Phe Pro Gly Asp Asp Asp Leu Ala Ile Pro Ala
 423 1 5 10 15
 426 Thr Glu Phe Phe Ser Thr Lys Ala Asp Lys Lys Pro Glu Ala Lys Arg
 427 20 25 30
 430 Glu Ala Ile Val Lys Ala Asp Glu Asp Asp Asn Glu Glu Thr Leu Lys
 431 35 40 45
 434 Gln Arg Leu Thr Asn Leu Glu Lys Lys Ile Thr Asn Val Thr Thr Lys
 435 50 55 60
 438 Phe Glu Gln Ile Glu Lys Cys Cys Lys Arg Asn Asp Glu Val Leu Phe
 439 65 70 75 80
 442 Arg Leu Glu Asn His Ala Glu Thr Leu Arg Ala Ala Met Ile Ser Leu
 443 85 90 95
 446 Ala Lys Lys Ile Asp Val Gln Thr Gly Arg Arg Pro Tyr Glu
 447 100 105 110
 450 <210> SEQ ID NO: 8
 451 <211> LENGTH: 110

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 09/14/2005
PATENT APPLICATION: US/10/620,787 TIME: 09:41:51

Input Set : A:\51300-00006 Sequence Listing.txt
Output Set: N:\CRF4\09142005\J620787.raw

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:5,10,15,20,27,32

VERIFICATION SUMMARY DATE: 09/14/2005
PATENT APPLICATION: US/10/620,787 **TIME:** 09:41:51

Input Set : A:\51300-00006 Sequence Listing.txt
Output Set: N:\CRF4\09142005\J620787.raw